<http://www.metoffice.gov.uk/guide/weather/symbols#pressure-symbols>

# Key to symbols and terms

* [Units](http://www.metoffice.gov.uk/guide/weather/symbols#units)
* [Weather symbols](http://www.metoffice.gov.uk/guide/weather/symbols#weathersymbols)
* [Wind symbols](http://www.metoffice.gov.uk/guide/weather/symbols#windsymbols)
* [Temperature symbols](http://www.metoffice.gov.uk/guide/weather/symbols#temperaturesymbols)
* [Solar UV symbols](http://www.metoffice.gov.uk/guide/weather/symbols#solarsymbols)
* [Rainfall radar imagery](http://www.metoffice.gov.uk/guide/weather/symbols#rainfallradar)
* [Satellite imagery](http://www.metoffice.gov.uk/guide/weather/symbols#satellite)
* [Visibility definitions](http://www.metoffice.gov.uk/guide/weather/symbols#visibility)
* [Pollen count](http://www.metoffice.gov.uk/guide/weather/symbols#pollencount)
* [Daily air quality index](http://www.metoffice.gov.uk/guide/weather/symbols#airquality)
* [Severe weather warnings](http://www.metoffice.gov.uk/guide/weather/symbols#severeweather)
* [Pressure chart symbols](http://www.metoffice.gov.uk/guide/weather/symbols#pressurecharts)

## Units

|  |  |  |
| --- | --- | --- |
| **Weather element** | **Default** | **Customisable options** |
| Wind speed | Miles per hour (mph) | Kilometres per hour (km/h)  Knots (kt)  Metres per second (m/s)  [Beaufort wind force scale](http://www.metoffice.gov.uk/guide/weather/marine/beaufort-scale) |
| Wind direction | 16 point compass (S, SSW, SW etc) |  |
| Temperature | Degrees Celsius (°C) | Degrees Fahrenheit (°F) |
| Pressure | Hectopascal (hPa) | Inches (in) |
| Visibility | Descriptive text (good, moderate etc) | Kilometres (km) |
| Height | Metres (m) |  |
| Rainfall | Millimetres (mm) | Inches (in) |
| Snow accumulation | Centimetres (cm) |  |
| Sunshine | Hours (h) |  |
| Humidity | Percentage (%) |  |
| Feels like temperature | Degrees Celsius (°C) | Degrees Fahrenheit (°F) |
| Chance of rain/snow | Percentage (%) |  |

## Weather symbols

|  |  |  |
| --- | --- | --- |
| Clear night Clear night | Sunny day Sunny day | Partly cloudy night Partly cloudy (night) |
| Sunny intervals Sunny intervals | Mist Mist | Fog Fog |
| Medium-level cloud Cloudy | Low-level cloud Overcast | Light rain shower (night) Light rain shower (night) |
| Light rain shower (day) Light rain shower (day) | Drizzle Drizzle | Light rain Light rain |
| Heavy rain shower (night) Heavy rain shower (night) | Heavy rain shower (day) Heavy rain shower (day) | Heavy rain Heavy rain |
| Sleet shower (night) Sleet shower (night) | Sleet shower (day) Sleet shower (day) | Sleet Sleet |
| Hail shower (night) Hail shower (night) | Hail shower (day) Hail shower (day) | Hail Hail |
| Light snow shower (night) Light snow shower (night) | Light snow shower (day) Light snow shower (day) | Light snow Light snow |
| Heavy snow shower (night) Heavy snow shower (night) | Heavy snow shower (day) Heavy snow shower (day) | Heavy snow Heavy snow |
| Thundery shower (night) Thunder shower (night) | Thundery shower (day) Thunder shower (day) | Thunder storm Thunder |
| No data No data |  |  |

## Wind symbols

Mean wind speeds are shown in a white symbol. The numbers in the circle indicate the mean wind speed in the units you have chosen (Miles per hour, Kilometres per hour or knots). The arrow points in the direction in which the wind is blowing relative to true north. Wind gusts are shown in a grey symbol.

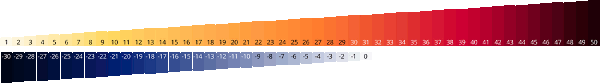
Wind key  
Wind arrow key  
Wind gust key

E.g. Wind 7 km/h east indicates a mean wind of 7 mph, coming from the east.

## Temperature symbols

### Forecast table

The number in the bar indicates the temperature in the units you have selected (Celsius or Fahrenheit). The height and colour of each bar represents the temperature at that time, the lowest temperature being blue and the warmest being red



### Homepage widget

The number in the square indicates the temperature in the units you have selected (Celsius or Fahrenheit). The squares are coloured depending on the temperature with the lowest being blue and the warmest being red.

Temperature scale

### Feels like temperature

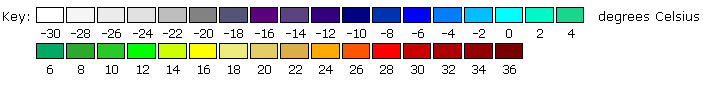
Feels like temperature takes into account wind speed and relative humidity to give a more representative indication of how the temperature will feel. For example if the temperature is 0 °C it will feel much colder with a wind speed of 25 than with a wind speed of 10.

Feels like temperature is displayed in the units you have selected (Celsius or Fahrenheit). The squares are coloured depending on the temperature with lowest being blue and the warmest being red.

Temperature scale

### Temperature Maps

The temperature is displayed in the units you have selected (Celsius or Fahrenheit).



## Solar UV Symbols

The strength of the sun's ultraviolet (UV) radiation is expressed as a 'Solar UV Index', a system developed by the [World Health Organization](http://www.who.int/uv/en/) . These Met Office forecasts include the effects of:

* the position of the sun in the sky;
* forecast cloud cover;
* ozone amounts in the stratosphere.

The solar index does not exceed 8 in the UK (8 is rare; 7 may occur on exceptional days, mostly in the two weeks around the summer solstice). Indices of 9 and 10 are common in the Mediterranean area.

|  |  |  |
| --- | --- | --- |
| **UV index** | **Exposure category** | **Protection required** |
| UV green 1UV green 2 | Low | None. You can safely stay outside. |
| UV yellow 3UV yellow 4UV yellow 5 | Moderate | Take care during midday hours and do not spend too much time in the sun unprotected. |
| UV orange 6UV orange 7 | High | Seek shade during midday hours, cover up and wear sunscreen. |
| UV red 8UV red 9UV red 10 | Very high | Spend time in the shade between 11 and 3. Shirt, sunscreen and hat essential |
| UV purple 11 | Extreme | Avoid being outside during midday hours. Shirt, sunscreen and hat essential |

[Hot weather and health](http://www.metoffice.gov.uk/health/yourhealth/hot-weather-and-health)

## Rainfall radar

## Rainfall key

## Satellite imagery

### Visible images

Visible images record visible light from the sun reflected back to the satellite by cloud tops and land and sea surfaces. They are equivalent to a black and white photograph from space. They are better able to show low cloud than infrared images (low cloud is more reflective than the underlying land or sea surface). However, visible pictures can only be made during daylight hours.

### Infrared images

The infrared image shows the invisible infrared radiation emitted directly by cloud tops and land or ocean surfaces. The warmer an object is, the more intensely it emits radiation, thus allowing us to determine its temperature. These intensities can be converted into greyscale tones, with cooler temperatures showing as lighter tones and warmer as darker.

Lighter areas of cloud show where the cloud tops are cooler and therefore where weather features like fronts and shower clouds are. The advantage of infrared images is that they can be recorded 24 hours a day. However, low cloud, having similar temperatures to the underlying surface, are less easily discernable.

## Visibility definitions

|  |  |
| --- | --- |
| **Description** | **Range** |
| Unknown | - |
| Very poor | Less than 1 km |
| Poor | Between 1-4 km |
| Moderate | Between 4-10 km |
| Good | Between 10-20 km |
| Very good | Between 20-40 km |
| Excellent | More than 40 km |

Our visibility forecasts do not routinely take into account  the effect of smoke (e.g. from fires, industry, photochemical)

Significant pollution events are supported by the Met Office through a range of professional services to government departments and coordinating agencies

## Chance of rain/snow (probability of precipitation)

This is an indication of the likelihood of rain, sleet, snow, hail, drizzle etc (precipitation) falling.

The forecast represents an hourly period for days one to two of the five day forecast and a three-hour period for days three to five. The Precipitation Probability is given as a percentage (%) to the nearest 5%  - it indicates how likely it is that any precipitation will fall during that period at the selected location.

Note that this does not mean the probability that it will be raining, snowing, hailing etc. for the whole of the period, only the probability that some precipitation will fall during that period.

[The science of 'probability of precipitation'](http://www.metoffice.gov.uk/news/in-depth/science-behind-probability-of-precipitation)

## Pollen count

Pollen count forecasts are displayed using the following key:

Pollen count levels

[Pollen forecast](http://www.metoffice.gov.uk/health/public/pollen-forecast)

## Daily air quality index

Daily index representing the background and regional air quality for a chosen location. Air pollution levels close to roads in urban areas may be higher. More information on the [Air pollution](http://www.metoffice.gov.uk/guide/weather/air-quality).

|  |  |  |  |
| --- | --- | --- | --- |
| **Air pollution banding** | **Value** | **Accompanying health messages for at-risk groups and the general population** | |
|  |  | **At-risk individuals** | **General population** |
| **Low**  level 1level 2level 3 | **1-3** | **Enjoy** your usual outdoor activities | **Enjoy** your usual outdoor activities |
| **Moderate**  level 4level 5level 6 | **4-6** | Adults and children with lung problems, and adults with heart problems, **who experience symptoms**, should **consider reducing** strenuous physical activity, particularly outdoors. | **Enjoy** your usual outdoor activities |
| **High**  level 7level 8level 9 | **7-9** | Adults and children with lung problems, and adults with heart problems, should **reduce** strenuous physical exertion, particularly outdoors, and particularly if they experience symptoms. People with asthma may find they need to use their reliever inhaler more often. Older people should also **reduce** physical exertion | Anyone experiencing discomfort such as sore eyes, cough or sore throat should **consider reducing** activity, particularly outdoors. |
| **Very High**  level 10 | **10** | Adults and children with lung problems, adults with heart problems, and older people, should **avoid** strenuous physical activity. People with asthma may find they need to use their reliever inhaler more often | **Reduce** physical exertion, particularly outdoors, especially if you experience symptoms such as cough or sore throat. |

**At-risk individuals** includes adults and children with heart or lung problems are at greater risk of symptoms. Follow your doctor's usual advice about exercising and managing your condition. It is possible that very sensitive individuals may experience health effects even on low air pollution days. Anyone experiencing symptoms should follow the guidance on the [Air pollution](http://www.metoffice.gov.uk/pagenotfound).

## Severe weather warnings

Warnings are colour coded red, amber, yellow depending on the likelihood and potential impact of severe weather. Green is used to indicate no warnings are in force.



|  |  |
| --- | --- |
| **Symbol** | **Warning** |
| Rain warning | Rain |
| Wind warning | Wind |
| Ice warning | Ice |
| Snow warning | Snow |
| Fog warning | Fog |

A [Weather warnings guide](http://www.metoffice.gov.uk/guide/weather/warnings) is available.

## Surface pressure charts

|  |  |
| --- | --- |
| Cold front | **Cold front**  The leading edge of an advancing colder air mass. Its passage is usually marked by cloud and precipitation, followed by a drop in temperature and/or humidity. |
| Warm front | **Warm front**  The leading edge of an advancing warmer air mass, the passage of which commonly brings cloud and precipitation followed by increasing temperature and/or humidity. |
| Occluded front revised | **Occluded front (or 'occlusion')**  Occlusions form when the cold front of a depression catches up with the warm front, lifting the warm air between the fronts into a narrow wedge above the surface. Occluded fronts bring cloud and precipitation. |
| Developing cold front Developing warm front | **Developing cold/warm front (frontogenesis)**  Represents a front that is forming due to increase in temperature gradient at the surface. |
| Weakening cold front Weakening warm front | **Weakening cold/warm front (frontolysis)**  Represents a front that is losing its identity, usually due to rising pressure. Cloud and precipitation becomes increasingly fragmented. |
| Upper cold front Upper warm front | **Upper cold/warm front**  Upper fronts represent the boundaries between air masses at levels above the surface. For instance, the passage of an upper warm front may bring warmer air at an altitude of 10,000 ft, without bringing a change of air mass at the surface. |
| Quasi stationary front | **Quasi-stationary front**  A stationary or slow-moving boundary between two air masses. Cloud and precipitation are usually associated. |
| Isobars | **Isobars**  Contours of equal mean sea-level pressure (MSLP), measured in hectopascals (hPa). MSLP maxima (anticyclones) and minima (depressions) are marked by the letters H (High) and L (Low) on weather charts. |
| Thickness lines | **Thickness lines**  Pressure decreases with altitude, and thickness measures the difference in height between two standard pressure levels in the atmosphere. It is proportional to the mean temperature of this layer of air, so is a useful way of describing the temperature of an airmass.  Weather charts commonly show contour lines of 1,000-500 hPa thickness, which represent the depth (in decametres, where 1 dam = 10 m) of the layer between the 1,000 hPa and 500 hPa pressure levels. Cold, polar air has low thickness, and values of 528 dam or less frequently bring snow to the UK. Conversely, warm, tropical air has high thickness, and values in excess of 564 dam across the UK often indicate a heatwave. |
| Trough | **Trough**  An elongated area of relatively low surface pressure. The troughs marked on weather charts may also represent an area of low thickness (thickness trough), or a perturbation in the upper troposphere (upper trough). All are associated with increasing cloud and risk of precipitation. |
| Convergence line | **Convergence line**  A slow-moving trough, which is parallel to the isobars and tends to be persistent over many hours or days. They are quite common in cold northerly outbreaks down the Irish Sea, affecting west Wales, Devon and Cornwall in particular, but can be found in other areas also. This convergence line can give hours of persistent precipitation over very localised areas, whilst a few miles down the road it is relatively dry, leading to some heavy snowfall/rainfall. In summer the convergence lines are not as easy to forecast, but then can still occur due to sea-breeze convergence, and are over the land, whilst in winter they are over the sea. |

Last updated: Sep 2, 2016 1:38 PM